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EXAMINER

RODRIGUEZ, LENNIN R

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2625

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/625,793	Applicant(s) MIKI, MOTOHARU	
	Examiner Lennin R. Rodriguez	Art Unit 2609	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 7/23/2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-8, 10-16 is/are rejected.
- 7) ☒ Claim(s) 4 and 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 7/23/2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>7/23/2003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description:

- (1) SL in Fig. 7A;
- (2) SU in Fig. 7B;
- (3) md' in Fig. 27.

Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to because in Fig. 3 fourth step it reads "Image **rotarion** process" and should be -- image **rotation** process --. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to

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avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description:

- (1) page 25, lines 3, 6, 12, 14, "RW";
- (2) page 25, lines 4, 8, "SC";
- (3) page 31, lines 18, 20, 22, 25, "WD";
- (4) page 32, lines 15, 19, "WD";
- (5) page 33, lines 13, 16, "WD".

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

4. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.
5. The abstract of the disclosure is objected to because it contains improper language such as **comprise** used in line 1. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 16 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. An "image processing program" is being recited; however an "image processing program" as presented in the claims is directed to software per se. This subject matter is not limited to that which falls within a statutory category of invention because it is limited to a process, machine, manufacture, or a composition of matter. Software is a function descriptive material and a function descriptive material is non-statutory subject matter.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Someno et al. (US Patent 6,744,530) in view of Minagawa (JP 2002112010, abstract was used for the citations).

(1) regarding claim 1:

Someno et al. disclose an image-recording apparatus which divides a complete image larger in width than a recording-medium into a plurality of images and, records the divided images on a plurality of recording-media, comprising:

image recording assembly that has a recording-head to record an image on the recording-medium, and a recording-medium-carrying mechanism to carry the recording-medium relatively to the recording-head (column 4, lines 19-25); and

a control section that has an image-processing section to subject image data to image processing, and controls the image recording assembly (column 4, lines 19-35),

wherein the image-processing section divides the image data indicative of the complete image into a plurality of image data pieces indicative of divided images, detects two adjoining divided-images that individually have a joint portion and adjoin each other at the respective joint portions, in the divided images indicated by the divided image data pieces (column 4, lines 27-35, where the print controller performs the division of the image and also detects adjoining pages),

the control section controls the image recording assembly so that a recording medium carries in one direction during recording all divided-images (column 9, lines 2-5, where the print head moves in a predetermined axis is being interpreted as moving in one direction),

the divided images are recorded on the respective recording-media one by one to form a plurality of output images (column 17, lines 30-40),

and the plurality of output images configure one complete image (column 17, lines 30-40).

Someno et al. disclose all the subject matter as described above except rotates one of the adjoining divided-images so as to make a recording direction of one of the

adjoining divided-images opposite to a recording direction of the other adjoining divided-image.

However, Minagawa teaches rotates one of the adjoining divided-images so as to make a recording direction of one of the adjoining divided-images opposite to a recording direction of the other adjoining divided-image (English abstract, lines 13-14).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to rotate one of the adjoining divided-images so as to make a recording direction of one of the adjoining divided-images opposite to a recording direction of the other adjoining divided-image as taught by Minagawa, in the system of Someno et al. In doing this the image can be successively printed when the characters are arrange upside down, thus improving the performance of the system.

(2) regarding claim 13:

Someno et al. disclose an image forming method which divides a complete image larger in width than a recording-medium into a plurality of images, and records the divided images on a plurality of recording-media, comprising:

detecting two adjoining divided-images (column 4, lines 27-35, where the print controller detects the adjoining images).

Someno et al. disclose all the subject matter as described above except recording one divided image from above and the other divided image from bottom among divided images corresponding to divided image data of image data of the complete image recorded on the recording-media.

However, Minagawa teaches recording one divided image from above and the other divided image from bottom among divided images corresponding to divided image data of image data of the complete image recorded on the recording-media (abstract, lines 13-14, where when it rotates the image is being interpreted as being printed or recorder from above and then from the bottom).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made recording one divided image from above and the other divided image from bottom among divided images corresponding to divided image data of image data of the complete image recorded on the recording-media as taught by Minagawa, in the system of Someno et al. In doing this the image can be successively printed when the characters are arranged upside down, thus improving the performance of the system.

9. Claims 2-3, 5-8 and 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Someno et al. (US Patent 6,744,530) and Minagawa (JP 2002112010) as applied to claim 1 above, and further in view of Nobuaki et al. (US Patent 6,256,105).

(1) regarding claim 2:

Someno et al. and Minagawa disclose all the subject matter as described above except wherein the control section controls the image recording assembly so that the joint portions of the divided images on the adjacent recording media lie at the same position with respect to the width direction of the media.

However, Nobuaki et al. teach wherein the control section controls the image recording assembly so that the joint portions of the divided images on the adjacent recording media lie at the same position with respect to the width direction of the media (column 2, lines 40-47, where by dividing the image by the width of the large image and printing it out is obvious that they are going to lie at the same position with respect to the width of the media).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made that the control section controls the image recording assembly so that the joint portions of the divided images on the adjacent recording media lie at the same position with respect to the width direction of the media as taught by Nobuaki et al., in the system of Someno et al. and Minagawa. With this it makes sure that the divided images are being printed in the same position so they can match with the adjacent images, thus making the outcome of the system user-friendlier.

(2) regarding claim 3:

Someno et al. and Minagawa disclose all the subject matter as described above except wherein the image-processing section divides the image data of the complete image in a width direction thereof based on a maximum recordable width according to a recording-medium used for recording.

However, Nobuaki et al. teach wherein the image-processing section divides the image data of the complete image in a width direction thereof based on a maximum recordable width according to a recording-medium used for recording (column 7, lines 65-67 and column 8, lines 1-3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made that the image-processing section divides the image data of the complete image in a width direction thereof based on a maximum recordable width according to a recording-medium used for recording as taught by Nobuaki et al., in the system of Someno et al. and Minagawa. With this it makes sure that the divided images are being printed in the same position so they can match with the adjacent images, thus making the outcome of the system user-friendlier.

(3) regarding claim 5:

Someno et al. and Minagawa disclose all the subject matter as described above except wherein the image-processing section divides the image data of the complete image into a predetermined number so that the divided images are uniform in width.

However, Nobuaki et al. teach wherein the image-processing section divides the image data of the complete image into a predetermined number so that the divided images are uniform in width (column 7, lines 65-67 and column 8, lines 1-3, where it divides the image into three equal parts ($1/3$)).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made that the image-processing section divides the image data of the complete image into a predetermined number so that the divided images are uniform in width as taught by Nobuaki et al., in the system of Someno et al. and Minagawa. With this it makes sure that the divided images are being printed at the same size so they can match with the adjacent images and be easily put together, thus making the outcome of the system user-friendlier.

(4) regarding claim 6:

Someno et al., Minagawa and Nobuaki et al. disclose all the subject matter as described above except wherein the predetermined number of divided image data is even.

However, Minagawa teaches wherein the predetermined number of divided image data is even (English abstract, line 14, where when it says the manuscript is divided in two is being interpreted as even).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made that the predetermined number of divided image data is even as taught by Minagawa, in the system of Someno et al., Minagawa and Nobuaki et al. In doing so it makes sure that the images are equally divided into even number of divided images, avoiding the problem that odd image division could have calculating an exact proportion, thus making it a simpler design.

(5) regarding claim 7:

Someno et al. and Minagawa disclose all the subject matter as described above except wherein the image-processing section changes in magnification the image data of the divided images so that a width of each divided images to be recorded is substantially equal to a width of a largest recording-medium of used recording-media.

However, Nobuaki et al. teach wherein the image-processing section changes in magnification the image data of the divided images so that a width of each divided images to be recorded is substantially equal to a width of a largest recording-medium of used recording-media (column 7, lines 65-67 and column 8, lines 1-3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made that the image-processing section changes in magnification the image data of the divided images so that a width of each divided images to be recorded is substantially equal to a width of a largest recording-medium of used recording-media as taught by Nobuaki et al., in the system of Someno et al. and Minagawa. With this it makes sure that the divided images are being printed in the same position so they can match with the adjacent images, thus making the outcome of the system user-friendlier.

(6) regarding claim 8:

Someno et al. and Minagawa disclose all the subject matter as described above except wherein the image-processing section compares the width of the divided image to be recorded with a maximum recordable width according to a used recording-medium, and when the width of the divided image is large, image-processing section increases the number of divided image data, and divide the image data of the complete image.

However, Nobuaki et al. teach wherein the image-processing section compares the width of the divided image to be recorded with a maximum recordable width according to a used recording-medium, and when the width of the divided image is large, image-processing section increases the number of divided image data, and divide the image data of the complete image (column 7, lines 65-67 and column 8, lines 1-3, where the CPU makes the comparison in order to know the amount of sections that it needs to divide the image into).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made that the image-processing section compares the width of the divided image to be recorded with a maximum recordable width according to a used recording-medium, and when the width of the divided image is large, image-processing section increases the number of divided image data, and divide the image data of the complete image as taught by Nobuaki et al., in the system of Someno et al. and Minagawa. With this it makes sure that the divided images are being printed at the same size so they can match with the adjacent images and be easily put together, thus making the outcome of the system user-friendlier.

(7) regarding claim 10:

Someno et al. and Minagawa disclose all the subject matter as described above except wherein the control section controls the image recording assembly so as to decide the divided image to be recorded first, and to sequentially record the divided images from the image nearest the first recorded divided image in arrangement of the image data.

However, Nobuaki et al. teach wherein the control section controls the image recording assembly so as to decide the divided image to be recorded first, and to sequentially record the divided images from the image nearest the first recorded divided image in arrangement of the image data (column 7, lines 63-67, column 8, lines 1-32, where the images are being recorder in an specified order).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made that the control section controls the image recording

assembly so as to decide the divided image to be recorded first, and to sequentially record the divided images from the image nearest the first recorded divided image in arrangement of the image data as taught by Nobuaki et al., in the system of Someno et al. and Minagawa. In doing so it makes sure that the divided images are being printed adjacent to each other and be easily put together, thus making the outcome of the system user-friendlier.

(8) regarding claim 11:

Someno et al. and Minagawa disclose all the subject matter as described above except wherein the image recording assembly is controlled so as to obtain the number of divided images between each divided image and the divided image to be recorded first in the width direction, and to start recording from a divided image that has a small number of divided images between itself and the divided image to be recorded first.

However, Nobuaki et al. teach wherein the image recording assembly is controlled so as to obtain the number of divided images between each divided image and the divided image to be recorded first in the width direction, and to start recording from a divided image that has a small number of divided images between itself and the divided image to be recorded first (column 7, lines 63-67, column 8, lines 1-32, where the images are being recorder in an specified order and the number of divided images was being obtained prior to the print out).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made that the image recording assembly is controlled so as to obtain the number of divided images between each divided image and the divided

image to be recorded first in the width direction, and to start recording from a divided image that has a small number of divided images between itself and the divided image to be recorded first as taught by Nobuaki et al., in the system of Someno et al. and Minagawa. In doing so it makes sure that the divided images are being printed adjacent to each other and be easily put together, thus making the outcome of the system user-friendlier.

10. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Someno et al. (US Patent 6,744,530) and Minagawa (JP 2002112010) as applied to claim 1 above, and further in view of Ericson et al. (US Patent 7,094,977).

Someno et al. and Minagawa disclose all the subject matter as described above except wherein the image-processing section obtains position information of the image data of the divided images in the width direction, and the control section controls the image recording assembly so as to record the divided images and the position information corresponding to the divided images on each recording-mediums.

However, Ericson et al. teach wherein the image-processing section obtains position information of the image data of the divided images in the width direction, and the control section controls the image recording assembly so as to record the divided images and the position information corresponding to the divided images on each recording-mediums (column 5, lines 39-42, where the position information is recorded in each recording medium).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made that the image-processing section obtains position

information of the image data of the divided images in the width direction, and the control section controls the image recording assembly so as to record the divided images and the position information corresponding to the divided images on each recording-mediums as taught by Ericson et al., in the system of Someno et al. and Minagawa. In doing so it makes sure that the divided images are being printed with positioning information so they can be easily put together, thus making the outcome of the system user-friendlier.

11. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Someno et al. (US Patent 6,744,530) in view of Eto et al. (US Patent 5,481,375).

Someno et al. disclose an image forming method which divides a complete image larger in width than a recording-medium into a plurality of images, and record the divided images on a plurality of recording-media, comprising:

dividing image data of the complete image into a plurality of divided image data so as to become such an image width that the image is recorded on the recording-medium (column 4, lines 27-35, where the image is divided into multiple divided images).

Someno et al. disclose all the subject matter as described above except recording divided images so that joined portions of two divided images to be joined to each other are at one position in a width direction of the recording-medium.

However, Eto et al., in the same field of endeavor, teach recording divided images so that joined portions of two divided images to be joined to each other are at one position in a width direction of the recording-medium (column 3, lines 36-48, where

the joint-portion processing means makes sure the images are printed consistent with each other).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made recording divided images so that joined portions of two divided images to be joined to each other are at one position in a width direction of the recording-medium as taught by Eto et al., in the system of Someno et al. In doing this it makes sure that the divided images are being printed adjacent to each other and be easily put together, thus making the outcome of the system user-friendlier.

12. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nobuaki et al. (US Patent 6,256,105) in view of Minagawa (JP 2002112010).

Nobuaki et al. disclose an image forming method which divides a complete image larger in width than a recording-medium into a plurality of images, connects a plurality of recording-media so as to be formed the complete image by connecting the plurality of divided images, and mutually connects both ends of the complete image, comprising:

detecting two divided-images corresponding to both ends of the complete image, to join each other (column 7, lines 65-67 and column 8, lines 1-33, where the images for both ends are being identified during the printing process), and

to be located the joint portions of the two divided-images on one position in a width direction of a recording-medium (column 7, lines 65-67 and column 8, lines 1-3, where the images are being recorded in the width direction).

Nobuaki et al. disclose all the subject matter as described above except dividing the complete image into an even number and setting one of the two divided-images so as to make a recording direction of one of the adjoining divided-images opposite to a recording direction of the other two divided-images.

However, Minagawa teaches dividing the complete image into an even number (English abstract, line 14, where the image is divided in two images is being interpreted as even) and setting one of the two divided-images so as to make a recording direction of one of the adjoining divided-images opposite to a recording direction of the other two divided-images (English abstract, lines 13-14, where when it says the image is rotated is being interpreted as recording in opposite directions).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made dividing the complete image into an even number and setting one of the two divided-images so as to make a recording direction of one of the adjoining divided-images opposite to a recording direction of the other two divided-images as taught by Minagawa, in the system of Nobuaki et al. In doing this the image can be successively printed when the characters are arranged upside down, thus improving the performance of the system.

13. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Someno et al. (US Patent 6,744,530) in view of Orita et al. (JP 08293996 A, abstract and translation was used for the citations).

Someno et al. disclose an image processing program (column 8, lines 43-45) which causes an arithmetic unit to realize:

an image acquisition function to obtain image data of a complete image (column 4, lines 18-20, where a print controller sends data to the printer);

an image division function to divide the image data of the complete image into a plurality of divided image data pieces in at least one direction (column 4, lines 27-35, where the print controller is doing the division of the image);

an image-recording apparatus control function to control an image-recording apparatus so that each divided image data may be recorded on one recording-medium (column 4, lines 27-35, where the complete image is being divided and printed in different recording media).

Someno et al. disclose all the subject matter as described above except an image selection function to select every other divided image data to be processed in one predetermined direction;

an image rotation function to rotate the selected divided image data by about 180°.

However, Orita et al. teach an image selection function to select every other divided image data to be processed in one predetermined direction (paragraph [0008], where when the system is performing a double-sided print is taking every other image and printing it in predetermined directions);

an image rotation function to rotate the selected divided image data by about 180° (English abstract, lines 9-11).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have an image selection function to select every other

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divided image data to be processed in one predetermined direction, an image rotation function to rotate the selected divided image data by about 180° as taught by Orita et al., in the system of Someno et al. With this the image can be successively printed when the characters are arranged upside down, thus improving the performance of the system.

Allowable Subject Matter

14. Claims 4 and 9 are objected to as being dependent upon a rejected base claim 1, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

15. The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record fails to teach that the image-processing section divides at least one of the image data of the divided images into two substantially at a center to set the number of divided image data to be even in claim 4, and

the control section compares the width of the each divided images with a maximum recordable width according to each recording-medium, selects a recording-medium that margin is smallest, and records each divided image by using the recording-medium in claim 9.

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Conclusion

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lennin R. Rodriguez whose telephone number is (571) 270-1678. The examiner can normally be reached on Monday - Friday 7:30am - 5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shuwang Liu can be reached on (571) 272-3036. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Lennin Rodriguez
5/22/07



SHUWANG LIU
SUPERVISORY PATENT EXAMINER